UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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ART UNIT	PAPER NUMBER
2145	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/083,114	OKAJIMA ET AL.
	Examiner	Art Unit	
	Azizul Choudhury	2145	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>24 June 2005</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-3,5-8,10-13 and 15-29</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-3,5-8,10-13 and 15-29</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>27 February 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date <u>4/22/04</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

This office action is in response to the correspondence received on June 24, 2005.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11, 12, 13, 25, 26 and 27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 11, 12, 13, 25, 26 and 27 are directed towards a program in a "computer storage medium." A "computer storage medium" unfortunately is not acceptable matter for it continues to violate MPEP 2106, where it is stated that functional descriptive material becomes statutory when it "...is recorded on some computer-readable medium..." Hence, the examiner is recommending amending the non-statutory subject matter "computer storage medium" to the statutory subject matter "computer-readable medium."

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 15-27 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claims are claiming constant link metrics

along with variable link metrics. The two types of metrics are considered contradictory

as currently presented. Appropriate corrections are requested.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-8, 10-13 and 15-29 are rejected under 35 U.S.C. 102(b) as being

anticipated by Wang, H.J. et al.

1.   With regards to claims 1 and 6, Wang teaches a link manager comprising:

detecting means for detecting a link installation (p. 54, column 2, lines 31-35 and p. 55,

Table 2 and p. 59, column 1, lines 14-18); managing means for defining a plurality of

link metrics indicating characteristics of each said link detected and managing data

corresponding to said respective link metrics on a table (p. 54, column 2, lines 31-35

and p. 55, Table 2); link metric rank assigning means for assigning ranks to said

respective link metrics, based on a predetermined preference (p. 55, column 2, lines 33-

35); data rank assigning means for assigning ranks to the data corresponding to said

respective link metrics; and selecting means for selecting a link by analyzing each link

based on each individual stored (constant and variable link) metric in order of rank, and

selecting a link corresponding to a record having data with a highest rank thus

assigned, at a link metric with a highest rank (p. 53, column 2, lines 42-45 and p. 55,

column 2, lines 17-28 and p. 56, column 1, lines 28-37).

2.   With regards to claims 2 and 7, Wang teaches the link manager, wherein said

managing means generates a record comprised of the data corresponding to said

respective link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p.

55, Table 2).

3.   With regards to claims 3 and 8, Wang teaches the link manager, wherein when a

new link corresponding to neither said record is detected, said managing means

generates a record corresponding to said new link and records data corresponding to

link metrics of said link and wherein when a link corresponding to either said record

becomes undetectable, said managing means deletes said record (p. 59, column 1,

lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

4.   With regards to claims 5 and 10, Wang teaches the link manager, wherein when

there exists a plurality of records having data with the highest rank thus assigned, said

selecting means selects a link corresponding to a record having data with a highest rank

thus assigned, at a link metric with a next highest rank (p. 55, column 2, lines 32-35 and

p. 56, column 1, lines 28-37).

5.   With regards to claim 11, Wang teaches a computer program of the product

including a computer storage medium with a computer program code mechanism stored

therein which when executed by a computer causes the computer to perform a method

of link management comprising steps of: detecting a link installation (p. 54, column 2,

lines 31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); defining a plurality of

link metrics indicating characteristics of each said link detected and managing data

corresponding to said respective link metrics on a table (p. 54, column 2, lines 31-35

and p. 55, Table 2); a process of generating a record comprised of the data

corresponding to said respective link metrics, for each link on said table (p. 54, column

2, lines 31-35 and p. 55, Table 2); assigning ranks to said respective link metrics, based

on a predetermined preference (p. 55, column 2, lines 33-35); assigning ranks to the

data corresponding to said respective link metrics; and when said predetermined

preference is given, analyzing each link based on each individual metric in the ranking

order of the respective metrics and selecting a link corresponding to a record having

data with a highest rank thus assigned, at a link metric with a highest rank (p. 55,

column 2, lines 17-28 and p. 56, column 1, lines 28-37).

6.   With regards to claim 12, Wang teaches the computer program product, which

comprises a process of, when there exist a plurality of records having data with the

highest rank thus assigned, selecting a link corresponding to a record having data with

a highest rank thus assigned, at a link metric with a next highest rank (p. 55, column 2,

lines 32-35 and p. 56, column 1, lines 28-37).

7.   With regards to claim 13, Wang teaches the computer program product, which

comprises a process wherein when a new link corresponding to neither said record is

detected, a record corresponding to said new link is generated and data corresponding

to link metrics of said link is recorded and wherein when a link corresponding to either

said record becomes undetectable, said record is deleted (p. 59, column 1, lines 14-18

and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29 and p. 58, column 1,

lines 1-14).

8.   With regards to claim 15, Wang teaches a link manager comprising: detecting

means for detecting a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2

and p. 59, column 1, lines 14-18); managing means for defining a plurality of constant

link metrics and variable link metrics (p. 56, column 1, lines 38-49), each indicating

characteristics of each said link detected and managing data corresponding to said

respective link metrics on a table, said managing means monitoring the variable link

metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and

selecting means for selecting a link by analyzing each link based on each individual

stored constant and variable link metric in order of rank, and selecting a link

corresponding to a record having data with a highest rank thus assigned, at a constant

or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56,

column 1, lines 28-37).

9.   With regards to claim 16, Wang teaches the link manager, wherein said

managing means generates a record comprised of the data corresponding to said

respective constant and variable link metrics, for each link on said table (p. 54, column

2, lines 31-35 and p. 55, Table 2).

10.   With regards to claim 17, Wang teaches the link manager, wherein when a new

link corresponding to neither said record is detected, said managing means generates a

record corresponding to said new link and records data corresponding to constant and

variable link metrics of said link and wherein when a link corresponding to either said

record becomes undetectable, said managing means deletes said record (p. 59, column

1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

11.   With regards to claim 18, Wang teaches the link manager, which comprises: link

metric rank assigning means for assigning ranks to said constant and variable link

metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); and data

rank assigning means for assigning ranks to the data corresponding to said constant

and variable link metrics, wherein when said predetermined preference is given, said

selecting means selects a link corresponding to a record having data with a highest rank

thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2,

lines 17-28 and p. 56, column 2, lines 28-37).

12.   With regards to claim 19, Wang teaches the link manager, wherein when there

exists a plurality of records having data with the highest rank thus assigned, said

selecting means selects a link corresponding to a record having data with a highest rank

thus assigned, at a constant or variable link metric with a next highest rank (p. 55,

column 2, lines 32-35 and p. 56, column 1, lines 28-37).

13.   With regards to claim 20, Wang teaches a link management method comprising:

a detecting step of detecting a link installation (p. 54, column 2, lines 31-35 and p. 55,

Table 2 and p. 59, column 1, lines 14-18); a managing step of defining a plurality of

constant link metrics and variable link metrics (p. 56, column 1, lines 38-49), each

indicating characteristics of each said link detected and managing data corresponding

to said respective link metrics on a table, said managing means monitoring the variable

link metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and

a selecting step of selecting a link by analyzing each link based on each individual

stored constant and variable metric in order of rank, and selecting a link corresponding

to a record having data with a highest rank thus assigned, at a constant or variable link

metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-

37).

14.   With regards to claim 21, Wang teaches the link management method, which

comprises a step of generating a record comprised of the data corresponding to said

respective constant and variable link metrics, for each link on said table (p. 54, column 2, lines 31-35 and p. 55, Table 2).

15.   With regards to claim 22, Wang teaches the link management method, which comprises a step wherein when a new link corresponding to neither said record is detected, a record corresponding to said new link is generated and data corresponding to constant and variable link metrics of said link is recorded and wherein when a link corresponding to either said record becomes undetectable, said record is deleted (p. 59, column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29).

16.   With regards to claim 23, Wang teaches the link management method, which comprises: a step of assigning ranks to said constant and. variable link metrics, based on a predetermined preference (p. 55, column 2, lines 33-35); and a step of assigning ranks to the data corresponding to said constant and variable link metrics, wherein said selecting step comprises a step of, when said predetermined preference is given, selecting a link corresponding to a record having data with a highest rank thus assigned, at a constant or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

17.   With regards to claim 24, Wang teaches the link assignment method, wherein said selecting step comprises a step of, when there exists a plurality of records having data with the highest rank thus assigned, selecting a lint: corresponding to a record

having data with a highest rank thus assigned, at a constant or variable link metric with

the next highest rank (p. 55, column 2 lines 32-35 and p. 56, column 1, lines 28-37).

18.   With regards to claim 25, Wang teaches the computer program product including

a computer storage medium with a computer program code mechanism stored therein,

which when executed by a computer causes the computer to perform a method of link

management, comprising steps of: detecting a link installation (p. 54, column 2, lines

31-35 and p. 55, Table 2 and p. 59, column 1, lines 14-18); defining a plurality of

constant link metric and variable link metrics (p. 56, column 1, lines 38-49), each

indicating characteristics of each said link detected and managing data corresponding

to said respective link metrics on a table (p. 54, column 2, lines 31-35 and p. 55, Table

2), and monitoring the variable link metrics which vary over time (p. 53, column 2, lines

42-45); a process of generating a record comprised of the data corresponding to said

respective constant and variable link metrics, for each link on said table; assigning

ranks to said respective link metrics, based on a predetermined preference; assigning

ranks to the data corresponding to said respective constant and variable link metrics;

and when said predetermined preference is given (p. 55, column 2, lines 33-35);

analyzing each link based on each individual metric in the ranking order of the

respective constant and variable metrics and selecting a link corresponding to a record

having data with a highest rank thus assigned, at a constant or variable link metric with

a highest rank (p. 55, column 2, lines 17-28 and p. 56, column 1, lines 28-37).

19.   With regards to claim 26, Wang teaches the computer program product, which

comprises a process of, when there exist a plurality of records having data with the

highest rank thus assigned, selecting a link corresponding to a record having data with

a highest rank thus assigned, at a constant or variable link metric with a next highest

rank (p. 55, column 2, lines 32-35 and p. 56, column 1, lines 28-37).

20.   With regards to claim 27, Wang teaches the computer program product, which

comprises a process wherein when a new link corresponding to neither said record is

detected, a record corresponding to said new link is generated and data corresponding

to constant and variable link metrics of said link is recorded and wherein when a link

corresponding to either said record becomes undetectable, said record is deleted (p. 59,

column 1, lines 14-18 and p. 58, column 2, lines 3-4 and p. 59, column 1, lines 28-29

and p. 58, column 1, lines 1-14).

21.   With regards to claim 28, Wang teaches a computer-readable memory in which

the program is recorded (The claimed trait is inherent in a design with computing

devices).

22.   With regards to claim 29, Wang teaches a link manager comprising: a detector

configured to detect a link installation (p. 54, column 2, lines 31-35 and p. 55, Table 2

and p. 59, column 1, lines 14-18); a processor configured to define a plurality of

constant link metrics and variable link metrics (p. 56, column 1, lines 38-49), each

indicating characteristics of each said link detected and managing data corresponding

to said respective link metrics on a table, said managing means monitoring the variable

link metrics which vary over time (p. 54, column 2, lines 31-35 and p. 55, Table 2); and

a processor configured to select a link by analyzing each link based on each individual

stored constant and variable link metric in order of rank, and selecting a link

corresponding to a record having data with a highest rank thus assigned, at a constant

or variable link metric with a highest rank (p. 55, column 2, lines 17-28 and p. 56,

column 1, lines 28-37).

Response to Remarks

The amendment received June 24, 2005 has been carefully considered but is not

deemed fully persuasive. In particular, the applicant's representative expresses

concerns over the rejection of the claimed trait of "analyzing each link based on each

individual stored metric in order of rank." The portion of the Wang prior art cited

teaches how importance or weight can be set as a parameter (p. 55, column 2, lines 17-

28). The user or the system can set the importance/weight. Wang goes on to teach

that the importance or weight is applied when comparing networks to determine a

winner (selection based upon rank) (p. 56, column 1, lines 28-37). The examiner

therefore remains convinced the claimed trait of "analyzing each link based on each

individual stored metric in order of rank," lacks novelty when compared against the traits

of the Wang design. As for the new claims, the traits of "constant link metrics" and

"variable link metrics" received 112 rejections. However, even if the applicant and their

representatives remain unconvinced with the 112 rejection and require further persuasion as to the lack of novelty within the claimed invention, Wang teaches static and dynamic information concerning the networks are used in the design (p. 56, column 1, lines 38-49).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Azizul Choudhury whose telephone number is (571) 272-3909. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on (571) 272-3880. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

AC

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